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EXPLAINING DUTCH FERTILITY RATES IN A COMPARATIVE EUROPEAN PERSPECTIVE

The role of economy, social policy and culture

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ABSTRACT: This article contributes to the search for explanations of the cross-national variation in fertility rates by studying the influence of social policy, economic and cultural factors on fertility in the former EU15, while giving special attention to one case: The Netherlands. This country lacks good social policy for supporting parents to combine work and care and nevertheless has a relatively high fertility rate. This article addresses the backgrounds of that phenomenon, using comparative macro level data from several sources, such as 'the child benefit package', the European Values Studies, OECD and Eurostat. We argue that bivariate relationships cannot explain cross-national variation in fertility rates. Therefore, we analyse configurations of factors, which shows among others that high availability of part-time jobs for women constitutes only part of the explanation for the Dutch fertility level. Good economic prospects and high male wages in combination with relatively low female human capital make that Dutch families can afford children at their own costs when men work full-time and women work part-time. Therefore, the low level of social policy that supports parents in the indirect or direct costs of children does not result in low fertility rates.

Key words: fertility rates; family policy; economy; culture; cross-national comparison; The Netherlands

1. Introduction

Despite the overall decline in fertility rates since the 1960s in most advanced industrialized countries, some countries have higher fertility rates than others. Though scholars on demography as well as on welfare states acknowledge this, they disagree on the explanation of this

cross-national variation in fertility rates. Castles (2003) points out that systematic and exhaustive comparative evidence for cross-national variation in fertility rates is only exceptionally presented. He states that demographers focus more on the factors shaping individual choice than on those shaping aggregates of behaviour, that economists tend to restrict themselves to analysing the impact of economic phenomena and to model building, while in addition relevant data on social policy have until recently not been available for permitting even a rudimentary comparative cross-national analysis (Castles 2003: 211). This is rather disappointing because variation in cross-national fertility rates challenges academic researchers as well as governments. Increasingly the ageing population is of major concern to the advanced industrialized countries.

The aim of this article is two-fold. We explore explanations of the cross-national variation in fertility rates by studying the relations between social policy, economic and cultural factors and fertility in the former EU15 countries, while giving special attention to one of the deviant cases: The Netherlands. This country is at odds with the overall European tendency that countries have higher fertility rates if they also have a rather good social policy for supporting parents to combine work and care. As might be known, in The Netherlands such a social policy is rather limited and nevertheless the country has relatively high fertility rates. We elaborate on the backgrounds of that phenomenon. Although the wide availability of part-time jobs offers an alternative route to combine work and care, we show that high part-time female employment rates constitute only part of the explanation for the Dutch fertility level. We argue that a configuration of factors, including economic, cultural and policy factors, should be taken into consideration to explain fertility rates. The Dutch fertility level and its backgrounds are the main focus of this article. However, since we study The Netherlands in comparison to the other EU15 countries, our results also include a general overview of configurations of economic, cultural and social policy factors that may explain high and low European fertility rates.

2. Fertility as a social fact: theoretical backgrounds

Potential parents will seldom decide to have children because their country needs them, nor will parents explain to their children that they were born because good quality childcare was available or because the macro-economic prospects were promising that year. Social scientists therefore should keep hold to Durkheim's (1938 [1895]) adagio and unravel the social facts that may explain the individual decisions resulting in national fertility rates. The social facts that up till now have been found as indicators for cross-national variation in fertility rates are Catholic

adherence, divorce rates, service employment, female labour force participation, women's education, women's wages and unemployment rates and services to combine work and family (Ahn and Mira 1998; Castles 1998, 2003; Esping-Andersen 1999). Underlying these factors are three clusters; economic, cultural and social policy indicators. Theoretically each of these clusters contributes differently to the increase or decline of fertility.

Economic theories envision children in terms of costs. Fertility is the result of rational behaviour, which makes having children a form of consumer behaviour; becoming a parent is a way of purchasing commodities. De Beer (1991) shows that confidence in the economy at the macro level has a positive effect on fertility in The Netherlands. The micro level new home economics theory assumes a positive relation between male income and fertility (Becker 1991). A high male income will result in an increasing demand for consumer goods, including children. The rapid fall in fertility which has taken place in many western countries since the mid-1960s is occasioned by the raising opportunity costs of children. These costs can be considered as forfeited income, in case a woman chooses to become a full-time mother after the birth of her child, instead of participating on the labour market. The increase in opportunity costs since the 1960s was caused by the stronger earning power of women due to higher educational attainment and higher labour market participation. According to the human capital theory (Becker 1975) human capital declines when a person does not gain experience in education or on the labour market. Hence, for higher educated women (potentially) earning good money, having children is least attractive.

Transforming these micro level theories into macro level explanations, fertility rates could be expected to be lower in countries where female employment is high and where women have a good position on the labour market than in countries where female employment is lower and where women earn less. However, Macunovich (1996) assumes that the negative effect of female income on fertility due to opportunity costs effect is reduced because women can use their income to pay for childcare and because formal childcare has become more accepted. As a result, the negative effect of opportunity costs on the number of children will be weaker than according to the new home economists, or can even disappear.

This brings us to the social policy cluster, outlined by Chesnais (1996) and Esping-Andersen (1999). They indicate that in advanced industrialized societies the correlation between employment of women and fertility is not only less negative than can be expected, but even positive. A higher status of women and the policies necessary to bring about such a status, may in fact become preconditions for achieving and maintaining a fertility level that – more or less – suffices for the replacement of successive

generations (Chesnaïs 1996). Esping-Andersen (1999: 67) states: 'The great paradox of our times is that familialistic policy appears counter-productive to family formation. (...) Indeed the correlation between fertility and women's paid employment is now exactly the opposite of what we might expect. The higher the rate of female employment, the greater the level of fertility'.

Since female education has increased and norms concerning gender roles have changed, the classical trade-off between female employment and fertility has changed in fundamental way. 'The trade-off that once pushed women into housewifery is now more likely to push them to reduce or even forgo births' (Esping-Andersen 1999: 69). However, in some contexts female careers and children can become fairly compatible; in others they do not. The role of a mediating variable is important here; the degree of 'familialization'.

A familialistic system, not to be confused with 'pro-family', is defined by Esping-Andersen (1999) as one in which households must carry the principal responsibility for their members' welfare. This is why familism easily goes hand-in-hand with a very passive and undeveloped family policy such as in Italy and Spain. The term de-familialization refers to policy that reduces the individual dependence of the family, according to Esping-Andersen (1999) the Nordic countries are most de-familialized. Familism may cause low fertility, but the actual incidence also depends on other factors, such as massive youth unemployment. In conclusion: Esping-Andersen claims that female employment levels influence fertility in a positive direction where childcare and family services are available, or where part-time work is available, and in a negative direction when the conditions for family formation or combining work and family life are not fulfilled.

The cultural cluster focuses on prevalent opinions on parenthood that could influence fertility behaviour. For example, the care ethos indicates to what extent people attach value to women themselves taking care of and raising their children at home. If the care ethos is high, substitutes for women's 'domestic time' are not considered as valuable replacement (Hagenaars and Wunkering-Van Veen 1990). Rindfuss and Brewster (1996) discuss this issue using terms such as childcare norms – i.e., norms on who should care for children and what kind of care children need – and attitudes towards working mothers. These form, according to Rindfuss and Brewster, a major component of the degree of role incompatibility between the mother and the worker role, which influences the relationship between fertility and female employment.

If one sees the presence of children as given, a strong care ethos negatively influences the employment level of women. For the purpose of analysing fertility rates, however, it is more interesting to examine the

influence of a care ethos on having children. If women want or need to work and much value is attached to taking care of children at home (by the mother), the fertility rate could be negatively influenced. Additionally, the importance attached to having children could be considered. If in a country the opinion prevails that men and women have to have children to be fulfilled as a man or woman, this could have a positive effect on the fertility rate. Finally, religion is assumed to influence fertility through general values regarding gender roles and the role of the family in society, and through specific norms or rules that encourage large families and discourage (or forbid) birth control (McQuillan 2004).

Hence, the combination of economic, institutional and cultural variables may result in a variety of configurations resulting in either high or low fertility rates. Expectations about these outcomes must be formulated carefully, because factors may oppose each other and it is hard to predict which influences are stronger. If cultural values do not contradict the economic framing of children as commodities, and women's human capital and opportunity costs are high, social policy supporting financial costs of children or supporting the combination of work and family life is probably needed to bring about relatively high fertility rates. If female human capital is not that high, but male earnings and economic prospects are good, family policy supporting parents might be less necessary to bring about high fertility rates. A high average male income may downplay the effect of opportunity costs, especially if women's aspirations for employment are not very high. If economic conditions are rather poor, while social policy does not support a family's costs of children, fertility rates will probably remain low.

3. Variables and data

This study aims to provide an additional analysis to studies presented by, among others, Castles (2003) by analysing alternative – EU15 – data, such as social policy data, survey data and the child benefit package and by using an alternative methodological approach for dealing with a large number of variables and a small number of cases. Before introducing that framework, we will discuss the variables used in this study.

The independent variables in our study represent the three clusters discussed in the theoretical section: economic, cultural and social policy variables. Variables that are indicative for people's confidence in the national economy and their own prospects are the growth of the Gross Domestic Product (GDP) per capita and youth unemployment. The former is calculated as the average annual growth of the GDP over the years 1997–1999 (Eurostat 2003). The latter is calculated on basis of

the average unemployment rates of men and women in the age groups 20–24 and 25–34 years old (OECD 2002).¹ Male earnings are measured as the average gross male earnings per month (Bradshaw and Finch 2002). Five variables are taken into consideration because they can influence the opportunity costs of having children: women's educational level, measured as the percentage of women in the age category 25–34 that has reached at least ISCED-97 level 5 (OECD 1999, 2001a), female earnings, containing the average gross earnings per month of full-time working women (Bradshaw and Finch 2002), women's employment rate (age group 25–34) (OECD 2002), women's part-time employment rate (age group 25–54) (Eurostat 2001) and the gender pay gap. The latter is calculated as women's average gross hourly wages as a percentage of men's gross average hourly wages (Eurostat 2003). Women's part-time employment rate does not only give more precise information on women's employment in combination with the overall employment rate and therefore gives additional information on the opportunity costs of children, but it is also an indication of the availability of part-time jobs, which makes combining a job and caring for children more easy.

Social policy variables are related to compensation for the direct costs of children as well as to compensation for the time (indirect costs) that raising children takes, by paid parental leave, and reduction of that time, by offering childcare. The compensation for the direct costs of children is operationalized as the level of the child benefit package (Bradshaw and Finch 2002). As it is impossible to find an indicator for the accessibility and availability of childcare (Bettio and Prechal 1998; Rostgaard and Fridberg 1998), we use the percentage of children under the age of three that uses formal childcare (OECD 2001b).² Since the demand of childcare exceeds the supply, these data about usage can be considered as an indicator for the structure of child care services (Leitner 2003). Finally, the parental leave arrangement indicates social policy support for the compensation parents get for being absent from the labour market. We classified the generosity of the arrangements as low, medium or high (at an ordinal level) by looking at the length of and the financial compensation for parental leave (Bradshaw and Finch 2002).

Cultural variables used in this study come from the European Values Study (Halman 2001). Care ethos is the value people attach to a mother

1. Measured by combining unemployment rates of four categories: men and women in the age groups 20–24 years and 25–34 years. The older groups are weighted double because of the double age range of this category.

2. Formal child care implies both public and private provision in child care centres and in residential care homes. Also included is care by childminders based in their own homes and by carers who are not family members but live with the family in question.

being at home to care for the children, measured by three items: 'A working mother can establish just as warm a relationship with her children as a mother who does not work', 'A pre-school child is likely to suffer if his or her mother works' and 'A job is all right, but what most women really want is a home and children'. Responses are scored on a scale ranging from 1 (agree strongly) to 4 (disagree strongly). Chronbach's α is 0.85. We used the percentages representing the national distributions of responses and calculated a country score for each item by multiplying the codes (1–4) with the corresponding percentages and adding the outcomes. The responses to the first item are inversely recoded. The final score is the average of the three item scores. To create the second cultural variable, that is the importance attached to having children, two items of the European Values Study are combined; 'Do you think that a woman has to have children in order to be fulfilled or is this not necessary?' and 'How would you feel about the following statement: "A man has to have children in order to be fulfilled"'. The country score on the first item is the percentage that answered 'yes'. The country score on the second item is calculated by multiplying the codes (1–5) with the corresponding percentages and adding them. The correlation between the two items is 0.91. To combine these two scores into one score, we use factor scores. Finally, religious commitment is measured by the following question from the EVS survey: 'Apart from weddings, funerals and christenings, about how often do you attend religious services these days?'. We use the percentage of people that attends religious services more than once a month.

The dependent variable in our study is the Total Fertility Rate (TFR). A disadvantage of using a period rate is that it is affected by processes of postponement and recuperation of fertility. However, given the purpose of this study, that is to explore patterns of factors that may contribute to cross-national variety in fertility rates, we have to use a period rate for measuring the fertility level. Economic, cultural and policy indicators for fertility are only measured at one moment in time, so they cannot be related to completed fertility rates of cohorts. Table 1 shows the data used in this study.

4. Comparing configurations

4.1. Bivariate explanations do not suffice

Before we discuss how to analyze our data, we look at the variation in fertility rates. The first column of Table 1 shows that all EU countries have TFRs below the replacement level as well as that there is a wide gap

TABLE 1. Scores of EU15 countries on TFR, economic, social policy and cultural variables

Country	TFR ¹	Economic variables							Social Policy variables			Cultural variables			
		Female educ. ²	Female earn. ³	Female empl. ⁴	Part-time female empl. ⁵	Gender pay gap ⁶	Male earn. ⁷	Growth of GDP ⁸	Youth unempl. ⁹	CBP ¹⁰	Child care ¹¹	Parental leave ¹²	Care ethos ¹³	Need children ¹⁴	Church attend. ¹⁵
France	1.89	33	1281	65.4	48.6	88	1590	2.8	18.3	162	29	2	2.40	0.988	11.9
Ireland	1.89	29	1018	71.6	44.1	78	1543	10.3	6.0	91	38	1	*	− 1.024	67.4
Luxembourg	1.78	20	1717	68.3	46.1	*	2060	7.1	1.6	199	*	3	2.43	− 0.290	31.8
Denmark	1.76	29	1613	76.8	56.7	86	1978	2.7	6.9	140	64	2	1.83	1.567	11.9
Finland	1.73	45	1207	69.5	68.6	81	1520	4.9	13.3	191	22	2	2.13	− 0.754	14.1
Netherlands	1.72	25	1283	76.6	21.1	79	1966	4.0	3.4	− 34	6	1	2.17	− 1.808	25.7
Belgium	1.65	38	1370	74.8	35.0	89	1672	2.9	12.2	142	30	2	2.31	− 0.367	28.0
UK	1.64	28	1554	71.0	41.9	78	2086	2.9	7.1	142	34	1	2.33	− 1.054	18.9
Portugal	1.54	15	620	75.6	65.3	95	825	4.1	6.0	− 15	12	1	2.52	0.893	51.3
Sweden	1.54	34	1316	75.1	52.8	83	1680	3.5	9.2	153	48	3	2.02	*	9.3
Germany	1.34	20	1467	69.7	42.9	81	1961	1.8	8.0	152	10	2	2.45	0.264	3.1
Austria	1.32	13	1140	75.6	47.3	79	1870	2.7	3.9	266	4	2	*	− 0.476	42.5
Greece	1.30	28	759	56.0	49.0	87	945	3.5	20.1	− 59	3	1	2.74	1.435	43.2
Italy	1.25	11	1272	50.5	41.8	91	1501	1.8	19.8	28	6	3	2.69	0.381	53.6
Spain	1.22	36	1059	53.6	42.6	86	1405	4.2	21.5	− 15	5	1	2.30	0.239	36.0

*Unknown

¹ Total Fertility Rate, 2000 (Eurostat 2002).

² Female educational attainment: share that attained at least ISCED 5 (%), 25–34 years, 1999.

³ Average female monthly earnings (£ purchasing power parities), 2001.

⁴ Female employment (%), 25–34 years, 1999.

⁵ Part-time female employment (%), 25–54 years, 1999.

⁶ Women's average gross hourly wages as a proportion of men's gross average hourly wages (%), 1999.

⁷ Average male monthly earnings (£ purchasing power parities), 2001.

Table 1 (Continued)

⁸ Average annual growth of Gross Domestic Product per capita (%), 1997–1999.
⁹ Youth unemployment (%), 20–34 years, 1999.
¹⁰ Level of child benefit package (£ purchasing power parities), 2001.
¹¹ Share of children under 3 using child care (%), 2001.
¹² Generosity of parental leave based on length and payment (1 = low, 2 = medium, 3 = high), 2001.
¹³ Care ethos, see Section 3 for operationalization, 1999/2000.
¹⁴ Importance attached to having children, see Section 3 for operationalization (factor scores), 1998/1999/2000.
¹⁵ Church attendance: proportion of population aged 18+ attending religious services more than once a month (%), 1999/2000.
For data sources see Section 3.

between fertility rates in France, Ireland, Luxembourg and Denmark on the one hand and Spain, Italy and Greece on the other hand. Striking though is the relatively high fertility rate of The Netherlands. Given that support for combining work and care is limited, which is widely acknowledged (Knijn 2001; Portegijs *et al.* 2002), it could have been expected that Dutch fertility rates would be low. Moreover, a cross-national study of child benefit packages (Bradshaw and Finch 2002) shows that the direct costs of children are relatively high in The Netherlands, while financial support for parents by the state is minimal, resulting in the lowest child benefit package of 22 industrialized countries after Greece (see Table 1, column 11).

How to analyse these data? Although bivariate correlations between the independent variables and the TFR (not shown) are not sufficient to explain national variation in fertility rates, we discuss a few correlations because they give a first impression. Positive relations between the TFR and female educational attainment, female earnings and female employment validate previous findings by Esping-Andersen (1999) and Castles (2003) and show that assumptions based on the new home economists' theory on opportunity costs are not valid at the macro level. The cultural variables – care ethos, importance attached to having children and church attendance – correlate negatively with the TFR (see also Castles (2003) on the negative correlation of Catholic adherence to fertility rates). The share of children under 3 using formal child care correlates most strongly with the TFR, in a positive direction ($r = 0.65$), whereas parental leave does not correlate with ($r = 0.07$) the TFR.

We have to be careful though, the fact that the correlations are bivariate implies that relations can be spurious and do not give information on outliers, which implies the possibility of ecological fallacies (Künzler 2002). Yet, the outliers can be interesting cases. For example, Austria and The Netherlands are outliers in the relationship between the child benefit package and the TFR. This positive correlation ($r = 0.31$) does not contribute to the explanation of the relatively high Dutch TFR and the low Austrian TFR, since Austria has by far the highest child benefit package and The Netherlands has the lowest child benefit package after Greece. Furthermore, the correlation between the TFR and the female employment rate (25–35) is 0.55, whereas there is no correlation between the TFR and the percentage of women aged 25–54 that are full-time employed ($r = 0.06$). Does this mean that the size of women's jobs does not have any meaning for the fertility rate, or could it be important in combination with other variables?

Fertility rates are probably the result of configurations of variables and therefore the best option for our cross-national analysis would be a multiple regression analysis. At this point we are confronted with a

methodological dilemma; the dilemma of the very small N in relation to the number of variables that we are examining. A regression analysis would only be possible if we could expand our N by including information on a number of yearly data of the EU15, however, such data are not available for all of the variables. That is why we decided to stick to the analysis of configurations at a lower methodological level, a descriptive analysis based on the basic principles of Ragin's (1994) method for 'comparative research on diversity'.

4.2. Method

The theoretical assumptions as well as statistical evidence discussed so far, urge to take *patterns of variables* into consideration, like in Ragin's method for comparative research on diversity. This method is an extension of 'macro-causal analysis' discussed by Skocpol and Somers (1980) method to which 'scholars turn in order to validate causal statements about macro-phenomena for which, inherently, there are too many variables and not enough cases' (Skocpol and Somers 1980: 182). Macro-causal analysis can be conducted using one of two analytic designs, or using a combination of them. On the one hand, one can try to establish that several cases, having in common the phenomenon to be explained, also have in common the hypothesized causal factors, although the cases vary in other ways that might have seemed relevant. This approach was labelled by John Stuart Mill (1970 [1888]) the 'method of agreement'. On the other hand, these cases can be contrasted to cases in which the phenomenon and the causes are both absent, although they are similar in other respects. This procedure Mill called 'method of difference' (Skocpol and Somers 1980).

Ragin's method is also based on the principles of agreement (labelled similarity by Ragin) and difference, but it takes into consideration complex patterns of similarities and differences in stead of bivariate combinations of conditions and outcomes. In addition, Ragin emphasizes that different configurations of conditions can lead to the same outcome. To be able to reduce complex patterns of variables to simple combinations of causal conditions, Ragin's method uses dichotomies indicating the presence or absence of conditions and outcomes. In our study, this would imply that countries can only be attributed a 'high' or 'low' score on fertility rate, as well as on all independent variables. We refine this dichotomization because it would be inappropriate to dichotomize variables on which many countries score around the average. Therefore, we divide all variables in three categories: high, middle and low. The classification of the country scores into these groups is done by a K-means cluster analysis, separately

for each variable, in which the number of groups is forced to be three.³ This procedure is used for all variables except for parental leave and the child benefit package. For the categorization of these variables we follow Bradshaw and Finch (2002). The results are presented in Table 2. Due to adding the middle category, and due to the large number of independent variables in our study,⁴ there are so many possible combinations of scores, that we can only use the first step and the basic principles of comparative research on diversity.

4.3. Findings

In Table 2 countries are ordered according to their TFR. As it is most interesting to examine the high and the low fertility countries, by looking at similarities within and differences between each of these groups, we will not discuss the countries with a medium TFR (Belgium, the United Kingdom, Portugal and Sweden).

If we would have applied the principle of agreement according to Skocpol and Somers (1980) we should have concluded that a number of our independent variables are irrelevant for explaining either high or low fertility because some countries within a group with the same outcome (either high or low fertility) score high and others score low on the same variable, i.e., opposite conditions lead to the same outcome. For example growth of GDP would be irrelevant for explaining high fertility and average male earnings would be irrelevant for explaining low fertility. Part-time female employment, the gender pay gap, youth unemployment, the child benefit package, parental leave and the importance attached to having children would be irrelevant for explaining high as well as low fertility. If we would have applied the method of difference, we should have concluded that all of our independent variables except for care ethos are irrelevant because the same conditions (i.e., the same score on one variable) occur in the high as well as the low fertility group. Care ethos is the only variable for which this is not true, but it has to be noticed that information on two countries is lacking.

However, in our line of reasoning, these results only imply that none of the variables is sufficient by itself to bring about high or low fertility.

3. Sometimes a country with an extreme score is excluded from the K-means cluster analysis, and added to the highest or lowest group afterwards, to avoid clusters containing only one country. The K-means cluster analyses are conducted using SPSS.

4. In Ragin's (1994) examples there are typically about four independent variables.

TABLE 2. Custerscores of EU15 countries on TFR, economic, social policy and cultural variables

Country	TFR ¹	Economic variables							Youth unempl. ⁹	Social Policy variables			Cultural variables		
		Female educ. ²	Female earn. ³	Female empl. ⁴	Part-time female empl. ⁵	Gender pay gap ⁶	Male earn. ⁷	Growth of GDP ⁸		CBP ¹⁰	Child care ¹¹	Parental leave ¹²	Care ethos ¹³	Need children ¹⁴	Church attend. ¹⁵
France	+	+				—		—	+					+	—
Ireland	+					+		+	—		+	—	*	—	+
Luxembourg	+		+			*	+	+	—	+	*	+			
Denmark	+		+	+			+	—			+		—	+	—
Finland	+	+			—					+			—	—	—
Netherlands	+			+	+	+	+		—	—	—	—	—	—	
Germany	—		+		+		+	—			—		+		
Austria	—	—		+	+	+	+	—	—	+	—	—	*	—	
Greece	—		—	—	—	—	—		+	—	—		+	+	
Italy	—	—		—	—	—		—	+	—	—	+	+		+
Spain	—	+		—	—				+	—	—	—			

+ High
(blank) Medium
— Low

* Unknown

¹ Total Fertility Rate, 2000.

² Female educational attainment: share that attained at least ISCED 5, 25–34 years, 1999.

³ Average female monthly earnings, 2001.

⁴ Female employment level, 25–34 years, 1999.

⁵ Part-time female employment level, 25–54 years, 1999.

Table 2 (Continued)

⁶ Women's average gross hourly wages as a proportion of men's gross average hourly wages, 1999.

⁷ Average male monthly earnings, 2001.

⁸ Average annual growth of Gross Domestic Product per capita, 1997–1999.

⁹ Youth unemployment level, 20–34 years, 1999.

¹⁰ Level of child benefit package, 2001.

¹¹ Share of children under 3 using child care, 1998/1999/2000.

¹² Generosity of parental leave based on length and payment, 2001.

¹³ Care ethos, 1999/2000.

¹⁴ Importance attached to having children, 1999/2000.

¹⁵ Church attendance, 1999/2000.

For data sources see Section 3.

Following Ragin (1994), we argue that we have to look at combinations of variables: configurations of conditions. Table 2 shows that all high fertility countries have a high or medium score on female education, female earnings, female employment and male earnings and that none of these countries has a high care ethos. These conditions seem to be necessary for a high TFR but they are not sufficient, since some countries with a low TFR also have one or more of these conditions. However, the specific combination of the necessary conditions is not found in any country with a low TFR.

None of the low fertility countries has a high score on the growth of GDP, all have a low score on child care and none have a low score on religion and care ethos. Again, these conditions are not sufficient, but the specific combination does not occur in any of the high fertility countries. This analysis does still not necessarily imply that other variables, which occur with high and low scores in high as well as low fertility countries, such as the child benefit package and part-time female employment, do not have any meaning for explaining cross-national variation in fertility rates. By comparing patterns of conditions, we might also find that certain conditions are not necessary by themselves, but are necessary in combination with other conditions.

Within the group of high fertility countries we see that France, Luxembourg, Denmark and Finland have the highest female human capital and opportunity costs. Although Ireland and The Netherlands also have medium or high scores on female educational attainment, female earnings and female employment level, they have only moderate opportunity costs. Ireland only has medium scores on the mentioned variables, furthermore Ireland and The Netherlands have a high gender pay gap. In addition, The Netherlands does have a high female employment rate, but most of this employment is part-time, while this is not the case in the other high fertility countries. Three out of the four countries with the highest opportunity costs – Denmark, Finland and Luxembourg – also have the best policy conditions, while The Netherlands has the worst and Ireland has mediocre policy conditions. Although good social policy conditions as such are not labelled necessary, they seem to be necessary in combination with high opportunity costs. Esping-Andersen's suggestions are confirmed here in a better way than correlation coefficients can do: good family policy conditions work as a mediating factor in the relationship between women's economic position and fertility. France is an exception that cannot be explained by our data, having high opportunity costs, the highest fertility rate, but not specifically generous policy conditions. This case might be explained by France's pronatalistic

polity, which does not result in high scores on our policy measures⁵ (though also not in low scores), but it is represented by the high score on the importance that people attach to having children. Ireland and The Netherlands are not only similar in having lower opportunity costs and worse policy conditions than the other high fertility countries, the tables show that they do not have opposite scores on the other economic nor on the cultural variables. However, there is no clear common causal pattern. We assume that in Ireland there are other reasons for the high TFR than in The Netherlands, such as religion and perhaps the strong growth of the GDP. We will expand on the explanation of the relatively high Dutch fertility rate in the next section.

Within the group of low fertility countries, Greece, Italy and Spain have a clear pattern: low opportunity costs (the high female educational attainment of Spain being the only exception), unfavourable economic conditions (low or medium scores on male earnings and growth of GDP, high scores on youth unemployment), unfavourable policy conditions and traditional cultural conditions. Apparently, traditional cultural norms are not sufficient for high fertility rates if economic and policy conditions are poor. Moreover, the high care ethos probably works against fertility. We will come back to this issue later. One could wonder whether facilities for combining work and care in these countries are relevant for the explanation of their fertility rates, since in these countries relatively few women work anyway. It is important to notice that in these countries the unemployment level among young women is very high,⁶ indicating that a large share of non-employed women are looking for a job. Since policy conditions for combining work and care are not generous, it is not rational for these unemployed women to have children. The configuration of conditions resulting in low fertility conditions in Spain, Italy and Greece, is not the only configuration that brings about low fertility. Germany and Austria also have low fertility rates, but their pattern of conditions is less clear-cut. We will discuss these countries in comparison to The Netherlands in the next section.

The picture that appears from applying the method of the comparative research on diversity is telling us that (a) fertility rates should be ascribed to a configuration of factors, and (b) that various configurations can result

5. For example, France does have long parental leave, but it is only paid for third and subsequent children (Bradshaw and Finch 2002). This makes it a pronatalistic policy measure, but not a policy that deserves a high score with regard to de-familialization, as parental leave is unpaid for the first two children.

6. In 1999 the unemployment level for women aged 25–34 was 18 percent in Italy, 21 percent in Greece and 25 percent in Spain. For women aged 20–24 years the levels were above 30 percent (OECD 2002).

in the same outcome. How to interpret these results? Apparently our findings support the reversal in explanations for fertility that is already noticed by, among others, Castles and Esping-Andersen. The 'traditional' assumption of that higher educated women who have more to loose (from an economic perspective) by having children may be true from a historical point of view and may therefore explain the second demographic transition, but from a comparative macro perspective this explanation nowadays lacks empirical evidence: the more a country is adjusted to integrating women on the labour market, the higher its fertility. Furthermore, dominant cultural values do not seem to lead to corresponding fertility behaviour at the national level. The more traditional opinions on parenthood, the lower fertility rates are. A plausible assumption may be that in traditional countries preferences of young adults regarding the combination of work and care deviate from the average cultural values and that social and employment policy is not (yet) adjusted to the needs of the young adults. The familialistic character of such countries not only forms an obstacle for young and well educated women to find their way into employment, they also form an obstacle for them to have children. To illustrate this, the negative relationship between care ethos and fertility level fits in very well with the configuration of factors that explain the low fertility rates of especially Germany, Italy and Greece; the strong care ethos might prevent women who want or need to work from having more than one child or from having children at all. This negative relationship also contributes to the configuration of conditions that explains the high fertility rates in Denmark and Finland. In these countries there is no normative impediment to combine having children and a job by outsourcing the care for one's children to day care on a full-time basis. Finally, our results more or less confirm that policy matters for fertility. Countries that hardly have any social policy to support the direct or indirect costs of children have the lowest fertility rates.⁷

This brings us to a rather deviant case: The Netherlands. This country strikingly contradicts the general tendency we just described. Its social policy supporting parents in the direct and indirect costs of children is limited and nevertheless it has relatively high fertility rates. As an example of how different configurations can result in the same outcome we will elaborate on what is going on in The Netherlands.

7. The opposite however, is not true. The case of Sweden (medium TFR) shows that a beneficial social policy does not always go together with high fertility rates. In this country fertility rates appear to have been very sensitive to the economic recession during 1990s, leading to decreased employment and cutbacks in child benefits. Still, Swedish child benefits are generous by international standards (Hoem 2000).

5. A deviant case: The Netherlands

While in other countries with a population having modern cultural values, these are reflected in high full-time female employment rates, Dutch women usually work part-time. In 2002, a total of 63 percent of all working women had a part-time job (Portegijs *et al.* 2002). The modern values of the Dutch population have not found their way in supportive social policy for parenthood yet. At surface one would expect low fertility rates in The Netherlands. Why do Dutch people decide to have children anyway? Interestingly, the conclusion should be that they can afford it by still having a rather steady breadwinner family, nowadays transformed in the one-and-a-half earner family (Knijn and Van Wel 2001; Portegijs *et al.* 2004). Our data show that first of all the average male earnings are high. Second, female educational attainment and female income are only medium and the full-time employment level of women is very low. Moreover, the gender pay gap is high. The combination of high male earnings, a high gender pay gap and women's medium human capital suggests that there are only moderate opportunity costs if women choose to stop working or reduce their working hours after having children. Therefore women do have children despite unpaid parental leaves and shortage of affordable childcare facilities. An alternative assumption might be that commercial or privatized provisions compensate for the rather low level of social policy to support parents. This assumption can only partly be confirmed. A study on leave arrangements in collective agreements (Peters and De Jong 2001) shows that only a small minority of the collective agreements (6 percent) contain payments for parental leave. In addition, in 2000 only 17 percent of all collective agreements included specific agreements for child care for children until age 4 (Portegijs *et al.* 2004). Moreover, a comparative study (Bradshaw and Finch 2002) shows that in The Netherlands (like in Ireland and the United Kingdom) the net costs of child care (after subsidies, taxes and benefits) are higher than in other EU15 countries.

Besides, accessibility and availability of part-time work in The Netherlands is quite good. Already since the 1980s working conditions, job protection and payments of employees working part-time have been the same as those of employees working full-time (Plantenga 2002). Since then the percentage of working women, not only mothers, who work part-time has steadily increased, from 50 percent in 1990 to 63 percent in 2002. With regard to the high share of women working part-time in The Netherlands, one has to be careful with drawing conclusions about causality. Low female full-time employment can be seen as an indication of the relatively low opportunity costs; the loss of a part-time income means less to a household than the loss of a full-time income. But the opposite also can be true; a

woman can decide to work part-time when becoming a mother because her earnings are low and the costs of full-time childcare are too high. Furthermore, it has to be noticed that high female part-time employment levels in itself are not enough to realize high fertility rates. In Germany and Austria many women work part-time (though not as many as in The Netherlands), whereas these countries have low fertility rates.⁸

The question remains how this lack of modernization of gender relationships goes together with the rather modern cultural values that the Dutch population shares with the other countries with high fertility rates. Obviously, and thanks to the high average male earnings, the rather good economic prospects at the end of the 1990s, the low opportunity costs and the rather good part-time work arrangements, Dutch women can afford to work part-time. And that is what they want. All studies on combining work and care by Dutch women show unanimously that hardly any Dutch mother wants to be a housewife nor to have a full-time job. Two aspects characterize this opinion: first, although the Dutch population agrees with the idea that it is better for a woman to be employed and that this does not harm children, the majority of the population, and of the women too, disapproves of mothers having a full-time job. A national survey held in 1995 shows that 64 percent of the respondents disapprove of dual earner families with school-aged children, if dual earning implies that both parents work full time (Van der Avort *et al.* 1996). Mothers of school-aged children themselves completely agree with the rejection of a full-time job. Knijn and Van Wel (2001) found that only 3 percent of these mothers favour a family type in which both parents work full-time, 31 percent prefer a family type in which both parents work half time, and 46 percent of these mothers prefer a family with a full-time working father and a part-time working mother. Particularly the higher educated mothers want both partners to work part-time instead of the one-and-half earner family type, but also hardly any higher educated mothers want a full-time job themselves. Second, and in striking contrast with women's ideas in many other advanced industrialized countries, in particular the Nordic ones and France, the Dutch population combines a low care ethos with a low work ethos, at least when it concerns women. Value studies show that more than in any other European country, the Dutch reject the idea that

8. Besides the part-time fertility rate, the other economic conditions of Germany and Austria are also more or less similar to The Netherlands (no opposite scores), the only striking difference between these countries and The Netherlands are the high child benefit package of Austria and the high care ethos of Germany. These differences cannot explain why Germany and Austria have so much lower fertility rates. Other factors, not included in our analysis have to be responsible for these low fertility rates, such as low ideal family sizes in Germany and Austria (Goldstein *et al.* 2003).

paid work is the best route towards women's economic independence (SCP 2000). And again, the same goes for Dutch mothers themselves; they much more support the idea of an equal division of housework and care tasks than the idea of an equal division of paid work (Knijn and Van Wel 2001).

6. Conclusion and further thinking on fertility

All in all we can conclude that Dutch fertility rates are high due to economic conditions and a specific social policy, that is: good economic prospects, a low unemployment rate among young adults, good conditions for part-time work, in combination with high male wages and relatively low female human capital and opportunity costs. Dutch families can afford having children at their own costs (high male wages) when men work full-time and women work part-time. Therefore, a social policy that supports parents in the indirect or direct costs of children is felt less necessary and its low level does not result in low fertility rates.

More generally, this study shows that a cross-national comparison of combinations of conditions and outcomes contributes to the explanations of national fertility levels. Economic, policy and cultural factors each play a role but the direction of their influence on fertility rates is hard to grasp and not one-dimensional. Nevertheless we can conclude that economic factors seem to have most influence on fertility, though their influence at the macro level is sometimes in the opposite way as is assumed by human capital and new home economy theorists at the individual level. Also, cultural factors play a diverging role under specific circumstances, and social policy is an important mediating factor mainly when economic and cultural factors are not favourable for fertility. As has been noted by others (Strohmeier 2002; Daly 2005), the relationship between policy and fertility is a notoriously difficult one and found patterns need to be treated with caution, but our approach to look at this relationship in the context of economic and cultural factors turns out to be valuable.

A drawback of our application of Ragin's method, is that (a) the use of three categories in stead of dichotomies and (b) the inclusion of many independent variables did not allow us to apply further analytical steps, which should lead to a reduction of the number of relevant variables, and a reduction of the number of possible causal patterns (see Ragin 1994). However, our detailed overview is valuable because (a) the direction of effect of variables in one cluster can be opposite and (b) it shows for example that one generous policy arrangement in an ungenerous policy climate, such as parental leave in Italy and the child benefit package in Austria, does not result in high fertility rates.

We can imagine that other factors have an influence on fertility, such as housing policy or the opinion on the importance of work for women's independence. Apart from that, this study gives rise to some recommendations for further research. First, this study is only a 'snapshot' in time. Our choice for analysing complex patterns of figurations implies that data restrictions do not allow us to analyse fertility trends, as Castles (2003) and Esping-Andersen (1999) do by sticking to, respectively, bivariate correlations and a regression analysis with two predictors. Then we would have needed difference scores (over time) of not only the TFR, but also of all of our independent variables. Second, besides looking at the average number of children per woman, examining the distribution of children among women in several countries will give a lot of valuable information. Low fertility rates could be the result of most women having only one child, or the result of many childless women on the one hand and many women with more than one child on the other hand. The choice of whether or not to have a second or third child is different from the choice of whether or not to have a first child. The unexpected combination of parenthood opinions favourable for having children but a low fertility rate, such as in Greece, might be explained by the fact that most women in that country have only one child; the value attached to having children prevents women from staying childless and policy and economic factors prevent them from having more than one child.

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